

## REMARKS

The Office Action of January 2, 2009 has been received and carefully reviewed. It is submitted that, by this Amendment, all bases of rejection are traversed and overcome. Upon entry of this Amendment, claims 1-7 remain in the application. Reconsideration of the claims is respectfully requested.

Status of claims: Claims 1-4 stand rejected under 35 U.S.C. § 101; Claims 1, 2, and 5 stand rejected under 35 U.S.C. § 112, first paragraph; Claims 1, 2, and 5 stands rejected under 35 U.S.C. § 112, second paragraph; and Claims 1-7 stand rejected under 35 U.S.C. § 103(a).

Claims 1-4 stand rejected under 35 U.S.C. § 101 for allegedly failing to tie the method to another statutory class (e.g., a particular machine or system). As provided by the Examiner, an example of a method claim that does not qualify as a statutory process is a claim that recites purely mental steps. The Examiner asserts that Applicant's claims 1-4 are not tied to another statutory class and can be performed without the use of a particular apparatus. The Examiner further asserts that the method steps recited in claims 1-4 fail to transform the underlying subject matter to a different state or thing. In other words, the Examiner asserts that the method fails to recite how the steps are accomplished and suggests that structural language be added to the claims in order to comply with 35 U.S.C. § 101.

While the Applicant does not agree with the Examiner's rejection under 35 U.S.C. § 101, in order to expedite prosecution, independent claims 1 and 2 have been amended according to the Examiner's suggestion stated above. Support for the amendments to claim 1 may be found in Applicant's specification as filed and are summarized in Table 1 below:

Table 1

sensing a vehicle incident via module on-board a vehicle	Page 2, lines 26-28
automatically sending vehicle incident data from the on-board module to a service center	Page 3, lines 16-19
via an estimator at the service center, using the incident data to automatically estimate the vehicle damage	Page 4, lines 3-6
utilizing the estimated vehicle damage in a vehicle insurance decision process by an insurance service management system	Page 4, lines 25-30

Support for the amendments to claim 2 may be found in Applicant's specification as filed and are summarized in Table 2 below:

Table 2

sensing a vehicle incident via an on-board module;	Page 2, lines 26-28
obtaining, via the on-board module, an incident delta velocity from the vehicle incident;	Page 3, lines 9-15
sending the incident delta velocity from the on-board module to a service center;	Page 3, lines 16-19
via an estimator at the service center, using the incident delta velocity with vehicle identification information to automatically estimate a vehicle damage value;	Page 4, lines 3-13
receiving, at an insurance service management system, a claim damage estimate from the service center;	Page 4, lines 25-30
comparing, via a processor associated with the insurance service management system, the automatically estimated vehicle damage value to the claim damage estimate	Page 5, lines 11-23

Applicant submits that the Examiner's 35 U.S.C. § 101 rejection of claims 1-4 had been obviated in light of the amendments recited above, and withdrawal of the instant rejection is respectfully requested.

Claims 1, 2, and 5 stand rejected under 35 U.S.C. § 112, first paragraph, for failing to comply with the enablement requirement. In the instant Office Action, the Examiner applied the eight "Wand factors" to determine if there is, in fact, a lack of enablement. Such factors include i) the breadth of the claims, ii) the nature of the invention, iii) the state of the prior art, iv) the level of one of ordinary skill, v) the level of predictability in the art, vi) the amount of direction provided by the inventor, vii) the existence of working examples, and viii) the quantity of experimentation needed to make or use the invention based on the content of the disclosure. The MPEP § 2164.01(a) provides that a determination of a lack of enablement may be reached by **weighing** all of the Wand factors. The Wand factors, the Examiner's arguments, and the Applicant's response to the Examiner's arguments are set forth hereinbelow:

### I. Breadth of the Claims

The Examiner argues that the claims are overly broad. Regarding claim 2, the Examiner further argues that the claim discloses only that delta velocity is used in estimating vehicle damage.

At the outset, the Applicant points out that claims 1 and 2 have been amended to include structural limitations corresponding to the individual steps of the claim (per Applicant's response to the Examiner's 35 U.S.C. § 101 rejection stated above). As such, the breadth of these claims is narrower than it was prior to such amendments.

Regarding claim 2, Applicant submits that this claim is *not* directed to a method of calculating delta velocity. Rather, the incident delta velocity is used to estimate a vehicle damage value. As disclosed in Applicant's specification as filed, the vehicle damage value is estimated by looking up the delta velocity in a look up table or database for that particular vehicle (e.g., vehicle model or other vehicle identification), and locating a corresponding vehicle damage value from the database (see page 4, lines 3-13 of Applicant's specification as filed). Such vehicle damage value may, e.g., subsequently be used to determine if an insurance claim is generally consistent with the actual damage to the vehicle to determine if the insurance claim is fraudulent (see page 5, lines 11-23). Accordingly, the essence of the claimed invention, as defined in claim 2, is a method for estimating vehicle damage; not a method for calculating delta velocity.

### II. Nature of the Invention

The Examiner states that the invention is drawn to estimating vehicle damage by using vehicle delta velocity, which is technically complex. Contrary to the Examiner's belief, a calculation of delta velocity is actually very simple and may be determined using very basic principles of physics. For example, the final velocity of an object may be defined by  $v_f = v_o + at$ , where  $v_f$  is the final velocity,  $v_o$  is the initial velocity,  $a$  is the acceleration, and  $t$  is the time (see, e.g., [library.thinkquest.org/15433/unit 1/1-3](http://library.thinkquest.org/15433/unit%201/1-3) and [id.mind.net/~zona/mstm/physics/mechanics/kinematics/EquationsForAcceleratedMotion/Origins/Velocity/Origin.htm](http://id.mind.net/~zona/mstm/physics/mechanics/kinematics/EquationsForAcceleratedMotion/Origins/Velocity/Origin.htm)). Of course, more complicated methods may be applied to determine delta

velocity for other applications (such as, e.g., the method disclosed in Kidd, et al. (U.S. Patent No. 6,470,303; previously cited by the Examiner). However, for purposes of Applicant's invention as defined in claim 2, any calculation (including a simple calculation) for delta velocity may be applied.

### III. State of the Prior Art

The Examiner cites many references and asserts that these references demonstrate the level of ordinary skill of the art at the time the invention was made. The Examiner argues that such references reveal that estimating vehicle damage from delta velocity and vehicle identification was not well known. Applicant, however, respectfully disagrees with the Examiner's argument, and submits that a method of estimating a value using a look up table or database has been used for many years and may be applied to a number of different applications. For example, look up tables may be used to determine geographic coordinates of a desired area or region, to determine the amount of sales tax in a particular state for a purchased item or good, and the like. Likewise, a look up table may similarly be constructed including vehicle damage values.

### IV. Level of Ordinary Skill

The Examiner argues that one of ordinary skill in the art must be mathematically skilled and, even if mathematically skilled, would still not know how to estimate vehicle damage from delta velocity and vehicle identification information. Applicant submits, however, that in light of the simple delta velocity calculation provided above, basic mathematical skills (e.g., an elementary school student) would be required to determine the delta velocity. Furthermore, it is submitted that mathematical skills would generally not be required to be able to use a look up table or database.

### V. Level of predictability in the Art

The Examiner argues that Applicant's invention as defined in claim 2 attempts to automate a manual process. The Examiner reasons that estimating vehicle damage is a

subjective manual process typically done by adjustors in the insurance business or specialists in the automotive business and, thus, the results would be unpredictable as they would require imprecise human judgments.

Applicant submits, however, that the method defined in claim 2 uses a machine estimation process to determine the vehicle damage value. As one skilled in the art would know, look up tables are often used in computer programs to determine desired outputs. In Applicant's invention as defined in claim 2, the vehicle damage value may be automatically estimated (via, e.g., a computer program) by looking up the damage value in the database or look up table based on the delta velocity and the vehicle identification information. As such, substantially no subjectivity is used to determine the vehicle damage value according to Applicant's method.

#### VI. Amount of Direction Provided by the Inventor

The Examiner argues that Applicant provides no direction (e.g., calculations, variables, inputs, and equations involved) in his specification for how the vehicle damage value is estimated. However, in light of Applicant's method described hereinabove with respect to the other Wand factors, it is submitted that Applicant's specification as filed adequately describes how the vehicle damage value is estimated. To summarize, the delta velocity (calculated, e.g., by the simple equation provided above) and vehicle identification information (e.g., vehicle model) is used by an estimator (e.g., a computer program) at the service center to determine the vehicle damage value from the look up table or database (see page 4, lines 3-13 of Applicant's specification as filed).

#### VII. Existence of Working Examples

The Examiner asserts that there are no working examples set forth in Applicant's specification as filed. Applicant submits that the existence of working examples in the specification is only one factor considered for a determination of a lack of enablement. To reiterate from above, *all of the factors must be weighed* to determine if an enabling disclosure is not present. In light of the discussion herein in regard to the other factors, Applicant submits that the lack of a working example does not itself render the application non-enabled.

VII. Quantity of Experimentation Needed to Make or Use the Invention Based on the Content of the Disclosure

The Examiner argues that based on the content of the disclosure, there would be an undue amount of experimentation to estimate the vehicle damage value. Again, Applicant submits that the vehicle damage value is estimated by looking the value up in a database or look up table. Contrary to the Examiner's assertion, Applicant submits that such estimating of the vehicle damage value would actually be relatively straight forward.

In consideration of Applicant's foregoing arguments with respect to the Wand factors, Applicant submits that the Examiner has *not* established that Applicant's specification lacks enablement, at least with regard to claim 2. Such arguments may also be applied to independent claims 1 and 5 and, thus, it is also submitted that the Examiner has not established that Applicant's specification lacks enablement with respect to these claims. Accordingly, Applicant submits that the instant 35 U.S.C. 112, first paragraph, rejection to claims 1, 2, and 5 for lack of enablement has been obviated, and withdrawal of the same is respectfully requested.

Claim 2 stands rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to point out and distinctly claim the subject matter which Applicant regards as the invention. The Examiner states that claim 2 is unclear because the claim does not provide which incident velocity is being obtained.

In response thereto, Applicant directs the Examiner's attention to page 2, lines 26-29 of Applicant's specification as filed, which states, "[r]eferring now to figure 1, the example system includes a vehicle 10 with an on-board module 40 capable of sensing a vehicle incident such as a vehicle impact to object 12. The object 12 may be a fixed object or a moving object *such as another vehicle*" (emphasis added). Applicant's specification further states that "the data recorded by the module 40 represents accelerometer data and the module 40 converts the accelerometer data into a delta velocity." Thus, the on-board module 40 senses a vehicle incident of *the vehicle*; the vehicle incident including an impact of the vehicle with, e.g., another vehicle, and the module 40 converts (obtains) the delta velocity *of the vehicle* from the incident.

Independent claim 2 has been amended in order to clarify this point. Claim 2 now recites, “obtaining an incident delta velocity *of the vehicle* from the vehicle impact” (emphasis added).

It is therefore submitted that the instant 35 U.S.C. § 112, second paragraph, rejection to claim 2 has been obviated in light of the foregoing amendment to the claims, and withdrawal of the rejection is respectfully requested.

Claims 1, 2, and 5 stand rejected under 35 U.S.C. § 112, second paragraph, as being incomplete for omitting essential steps. The Examiner asserts that steps related to how one uses incident data to determine vehicle damage is missing from the claims. More specifically, the Examiner states that Applicant’s specification only teaches that an estimator makes an estimate by looking up the input in a database, but submits that no such database is known to exist and the steps involved in looking up, calculating, and determining based on the incident data are missing.

Applicant herein reiterates all of his arguments set forth above with respect to the Examiner’s 35 U.S.C. § 112, second paragraph, rejection and submits that the Examiner is making the method of estimating the vehicle damage value too complicated. The method is actually quite simple, whereby the incident data is used as an input for the look up table, from which the vehicle damage value is retrieved. As such, it is submitted that the Examiner’s instant 35 U.S.C. § 112, second paragraph, is erroneously based, and withdrawal of the same is respectfully requested.

Claim 1 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Mackey, et al. (U.S. Patent No. 6,141,611) in view of Lockwood, et al. (U.S. Patent No. 6,694,234). The Examiner asserts that the combination of Mackey and Lockwood discloses all of the elements of independent claim 1. Further, the Examiner admits that Mackey does not disclose using the incident data to automatically estimate the vehicle damage.

Applicant respectfully disagrees with the Examiner’s rejection stated above. Amended claim 1 recites “via an estimator *at the service center*, using the incident data to automatically estimate the vehicle damage” (emphasis added).

Lockwood discloses a customer service automation method, which uses, e.g., sensors to detect that a vehicle has been involved in a collision. *The sensors* may, in an example, indicate parts of the vehicle that have been damaged (e.g., the front end of the vehicle and the right front

quarter panel of the vehicle, as set forth in the Example in column 8, lines 64-66 of Lockwood.) Applicant submits that Lockwood does *not* disclose that the estimating of the vehicle damage is accomplished via ***an estimator at a service center***.

Further, Applicant's specification as filed defines the estimated vehicle damage as "a range of actual damage values consistent with the data recorded by the module 40." (See page 4, lines 9-10.) The data recorded by the module includes the vehicle incident data. The term "value" is generally known as "a numerical quantity measured, assigned, or computed" (see, e.g., <http://wordnetweb.princeton.edu/perl/webwn?s=value>). Thus, a vehicle damage value refers to a numerical estimate of the vehicle damage sensed by the on-board module. Such vehicle damage value is in sharp contrast to the vehicle damage (the actual, physical damage) sensed by the sensors in Lockwood. As such, it is submitted that Lockwood does *not* teach that the sensors estimate the vehicle damage (applying Applicant's definition of vehicle damage stated in Applicant's specification as filed).

For the reasons stated above, it is submitted that the combination of Mackey and Lockwood *fails* to disclose all of the elements of independent claim 1. As such, is it further submitted that Applicant's invention as defined in independent claim 1 is not anticipated, taught or rendered obvious by Mackey and Lockwood, either alone or in combination, and patentably defines over the art of record.

Claims 2-7 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Mackey and Lockwood, and further in view of Madill, Jr., et al. (U.S. Patent Publication No. 2005/0108063) and Applicant's Admitted prior art.

At the outset, Applicant herein reiterates his arguments set forth above in support of the patentability of claim 1 and submits that Lockwood does *not* disclose automatically estimating a vehicle damage value via ***an estimator at a service center***. Additionally, Applicant submits that Lockwood also does *not* disclose that the vehicle collision damage is estimated using delta velocity and ***vehicle identification*** information. At most, Lockwood discloses that the damage is sensed using the sensors that determine that the vehicle has been in a collision.

Applicant further submits that Madill *fails* to supply the foregoing deficiencies of Mackey and Lockwood. Madill discloses a system for assessing the potential for fraud in a



business transaction by providing data to a computer system and applying a fraud potential detection model (see abstract of Madill). Applicant submits that Madill does *not* disclose i) estimating a vehicle damage via an estimator at a service center, and ii) estimating the vehicle damage using delta velocity and vehicle identification information.

For all of the reasons stated above, it is submitted that Applicant's invention as defined in claims 2 and 5, and in those claims depending ultimately therefrom, is not anticipated, taught, or rendered obvious by Mackey, Lockwood, and Madill, either alone or in combination, and patentably defines over the art of record.

In summary, claims 1-7 remain in the application. It is submitted that, through this Amendment, Applicant's invention as set forth in these claims is now in a condition suitable for allowance.

Further and favorable consideration is requested. If the Examiner believes it would expedite prosecution of the above-identified application, the Examiner is cordially invited to contact Applicant's Attorney at the below-listed telephone number.

Respectfully submitted,

DIERKER & ASSOCIATES, P.C.

/Julia Church Dierker/

Julia Church Dierker  
Attorney for Applicant  
Registration No. 33368  
(248) 649-9900, ext. 25  
juliad@troypatent.com

3331 West Big Beaver Rd., Suite 109  
Troy, Michigan 48084-2813  
Dated: May 4, 2009  
JCD/AMS/JRK